UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,259	07/18/2003	Steven Michael Hausman	2002P20760US01	3269

7590   11/02/2006

Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, NJ 08830

EXAMINER
HASSAN, AURANGZEB

ART UNIT	PAPER NUMBER
2182	

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/622,259	HAUSMAN ET AL.
	Examiner	Art Unit	
	Aurangzeb Hassan	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 August 2006</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>8/8/2006</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 26 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by

Thomas et al (US Patent Number 5,649,001 hereinafter "Thomas").

3.   As per claim 26, Thomas teaches a method comprising the activities of: providing

a programmable cable comprising a first end connectable to a network (communication

interface device, element 20, figure 1) and a second end connectable to a network

communications device (communication network/device, element 28, figure 1), a user

interface device **couplable** to a network (cellular phone system, column 3, lines 8 – 15);

and automatically communicating from the programmable cable to the network

communicating device a PIN number and at least one of a plurality of configuration

parameters (handshaking and connectivity via communication interface device upon

automatic verification of the identification code, column 6, lines 15 – 48, communication

adapter cable identification code stored on communication adapter cable in use for

cellular telephone network, column 10, lines 47 – 59).

The Examiner elaborates that Thomas teaches a programmable cable couplable to a network. Thomas teaches a general network and as the claim limitations stand in claim 26, the **couplable** does not necessitate all the proceeding elements but rather puts forth a capability to be coupled to such a network. As claim 26 is a method the claim limitation couplable does not necessitate the particular network comprising particular network elements but rather necessitates the capability of coupling to a network in general which is Thomas' cellular phone system.

4.   As per claim 28, Thomas teaches a method wherein the configuration parameters communicated to the network communications device further comprise a network communications device setup string (column 8, lines 45 – 58).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 9 – 12 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas in view of Cisco Systems.

7.   As per claims 9 and 27, Thomas teaches a device comprising: a programmable

cable comprising, a first end connectable to a network (**couplable** to a PLC), and a

second end connectable to a network communications device (communication

network/device, element 28, figure 1); the network communications device further

couplable to a user interface device (cellular phone system, column 3, lines 8 – 15),;

and said programmable cable programmable to store at least one of a plurality of

configuration parameters comprising: a communication language (adapt the modem to

a particular country's telephone network, column 1, lines 63 – 67, column 3, lines 1 – 2)

and an identifying PIN number (communication adapter cable identification code stored

on communication adapter cable, column 10, lines 47 – 59, emphasis added).

Thomas fails to explicitly teach said programmable cable programmable to store

at least one of a plurality of configuration parameters comprising: a mode of operation, a

PPI protocol, a cable locality mode, and a data transfer speed.

Cisco Systems teaches said programmable cable programmable to store at least

one of a plurality of configuration parameters comprising: a mode of operation (Section:

Token Ring Operation), a PPI protocol (Section: Frame Format), a cable locality mode

(Section: Fault-Management Mechanisms), and a data transfer speed (data rates, figure

9-1).

It would have been obvious to one of ordinary skill in the art at the time of the

applicant's invention to modify Thomas with the above teachings of Cisco Systems.

One of ordinary skill in the art would have been motivated to make such modification in order to allow reduce collisions of data on network (Section: Review Questions).

The Examiner asserts that the claim limitations only require the capability to communicate to the PLC but do not necessitate such limitations. Accordingly the programmable cable of Thomas communicates with a computer and network.

8.   Thomas modified by the teachings of Cisco Systems as applied to claims 9 and 27 above, as per claim 10, Cisco Systems teaches a device wherein said programmable cable further adapted to, in an operative configuration, serve as a token holding master on the network adapted to multiplex networked communications with the PLC (each station holding token, Section: Token Ring Operation).

9.   As per claim 11, Thomas teaches a device wherein in an operative embodiment, said programmable cable adapted to automatically configure the network communications device by communicating at least one of a plurality of configuration parameters to the network communications device (column 8, lines 45 – 58).

10.   As per claim 12, Thomas teaches a device wherein said second end of said programmable cable comprises an RS232 network connector (communication over an RS232 serial port, column 1, lines 31 – 37).

11.   Claims 1 – 8, 14 – 17 and 19 – 22 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Thomas et al (US Patent Number 5,649,001 hereinafter "Thomas") in

view of Sexton (US Patent Number 6,965,802).

12.   As per claim 1, Thomas teaches a system comprising: a cellular telephone

modem (cellular phone system, column 3, lines 8 – 15); and a programmable cable

(communication adapter cable, element 22, figure 1) comprising a first end connectable

to a computer (communication interface device, element 20, figure 1) and a second end

connectable to said cellular telephone modem (communication network/device, element

28, figure 1, cellular phone system, column 3, lines 8 – 15); said programmable cable

adapted to store at least one of a plurality of configuration parameters comprising a PIN

number (identification code, column 6, lines 15 – 20); said programmable cable adapted

to, in an operative embodiment, automatically configure said cellular telephone modem

by communicating at least one of the configuration parameters to said cellular telephone

modem (column 6, lines 15 – 25 and lines 38 – 46).

Thomas fails to specify the type of computer as being a PLC.

Sexton analogously discloses a PLC coupled to cellular phone system.

It would have been obvious to one of ordinary skill in the art at the time of the

applicant's invention to define the environment of Thomas' computer coupled to a

cellular phone system in an industrial environment as seen above in Sexton. One of

ordinary skill in the art would make such modification in order to allow for remote access

to a computer in an industrial environment avoiding costs incurred when the PLC

adversely affects the process it controls (column 1, lines 47 – 53).

The examiner notes that the applicant in the specification background, paragraph 2,

lines 1 and 2, states that a PLC is a type of **computer** (emphasis added) utilized in

control systems.

13.   Thomas modified by the teachings of Sexton as applied in claim 1 above as per

claim 2, Thomas teaches a device comprising: a programmable cable (communication

adapter cable, element 22, figure 1) comprising a first end connectable to a PLC

(communication interface device, element 20, figure 1) and a second end connectable

to a network communications device (communication network/device, element 28, figure

1), the network communications device further couplable to a user interface device

(cellular phone system, column 3, lines 8 – 15); said programmable cable adapted to

store at least one of a plurality of configuration parameters; in an operative embodiment,

said programmable cable adapted to automatically configure the network

communications device by communicating at least one of a plurality of configuration

parameters to the network communications device comprising a PIN number

(communication adapter cable identification code stored on communication adapter

cable, column 10, lines 47 – 59).

14.	Thomas modified by the teachings of Sexton as applied in claim 1 above as per claim 3, Thomas teaches a device wherein the network interface device is a cellular telephone modem (cellular phone system, column 3, lines 8 – 15).

15.	Thomas modified by the teachings of Sexton as applied in claim 1 above as per claim 4, Thomas teaches a device wherein the network interface device is a telephone modem (telephone network, column 1, lines 65 – 67, column 2 lines 1 – 2).

16.	Thomas modified by the teachings of Sexton as applied in claim 1 above as per claim 5, Thomas teaches a device wherein the configuration parameters further comprise a setup string for the network interface device (column 8, lines 45 – 58).

17.	Thomas modified by the teachings of Sexton as applied in claim 1 above as per claim 6, Thomas teaches a device wherein the network interface device is a couplable to the user interface device via a network (column 8, lines 42 – 59).

18.	Thomas modified by the teachings of Sexton as applied in claim 1 above as per claim 7, Thomas teaches a device wherein the network interface device is couplable to the user interface device via a cellular network (cellular phone system, column 3, lines 8 – 15).

19.   Thomas modified by the teachings of Sexton as applied in claim 1 above as per

claim 8, Thomas teaches a device wherein the network interface device is couplable to

the user interface device via the Internet (column 8, lines 42 – 59).

20.   Thomas modified by the teachings of Sexton as applied in claim 1 above as per

claim 14, Thomas teaches a method comprising the activities of: providing a

programmable cable comprising a first end and a second end, the first end connectable

to a PLC (communication interface device, element 20, figure 1), the second end

connectable to a cellular telephone modem (communication network/device, element

28, figure 1), a user interface device couplable to a network comprising the

programmable cable, the PLC, and the cellular telephone modem (cellular phone

system, column 3, lines 8 – 15); and automatically configuring the cellular telephone

modem by the programmable cable (handshaking and connectivity via communication

interface device upon automatic verification of the identification code, column 6, lines 15

– 48).

21.   Thomas modified by the teachings of Sexton as applied in claim 1 above as per

claims 15 and 16, Thomas teaches a method wherein said automatically configuring

activity occurs during/after a power-cycling of the programmable cable (power-cycling

through connection and interchanging of adapter cables and automatically configuring

through periodic polling, column 4, lines 17 – 63).

22. Thomas modified by the teachings of Sexton as applied in claim 1 above as per claim 17, Thomas teaches a method comprising automatically from the programmable cable to the network communications device at least one of a plurality of configuration parameters (column 8, lines 42 – 59).

23. Thomas modified by the teachings of Sexton as applied in claim 1 above as per claims 19 – 21, Thomas teaches a method further comprising initializing the programmable cable using the user interface device through the network by setting at least on of a plurality of configuration parameters comprising a network communications device setup string and a PIN number (communication adapter cable identification code stored on communication adapter cable, column 10, lines 47 – 59).

24. Thomas modified by the teachings of Sexton as applied in claim 1 above as per claim 22, Thomas teaches a method wherein said activity of automatically configuring the cellular telephone modem by the programmable cable further comprises communicating at least one of a plurality of configuration parameters, comprising cellular telephone modem setup string and a PIN number, to the cellular telephone modem (handshaking and connectivity via communication interface device upon automatic verification of the identification code, column 6, lines 15 – 48, communication adapter cable identification code stored on communication adapter cable in use for cellular telephone network, column 10, lines 47 – 59).

25.   Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas

in view of Sexton further in view of Cisco Systems.

26.   As per claim 18, the combination of Thomas and Sexton teaches a device

comprising: a programmable cable comprising, a first end connectable to a network

couplable to a PLC (communication interface device, element 20, figure 1), and a

second end connectable to a network communications device (communication

network/device, element 28, figure 1); the network communications device further

couplable to a user interface device (cellular phone system, column 3, lines 8 – 15), the

PLC communicable with said user interface using said programmable cable (column 6,

lines 37 – 48); and said programmable cable programmable to store at least one of a

plurality of configuration parameters comprising: a communication language (adapt the

modem to a particular country's telephone network, column 1, lines 63 – 67, column 3,

lines 1 – 2) and an identifying PIN number (communication adapter cable identification

code stored on communication adapter cable, column 10, lines 47 – 59).

The combination of Thomas and Sexton fails to explicitly teach said

programmable cable programmable to store at least one of a plurality of configuration

parameters comprising: a mode of operation, a PPI protocol, a cable locality mode, and

a data transfer speed.

Cisco Systems teaches said programmable cable programmable to store at least

one of a plurality of configuration parameters comprising: a mode of operation (Section:

Token Ring Operation), a PPI protocol (Section: Frame Format), a cable locality mode

(Section: Fault-Management Mechanisms), and a data transfer speed (data rates, figure 9-1).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Thomas and Sexton with the above teachings of Cisco Systems. One of ordinary skill in the art would have been motivated to make such modification in order to allow reduce collisions of data on network (Section: Review Questions).

27.   Claims 13 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas in view of Cisco further in view of Rostoker et al. (US Patent Number 6,978,319)

28.   As per claim 13, Thomas teaches a device wherein said second end of said programmable cable comprises a connector (can be utilized with wide variety of communication protocols and a variety of networks, column 3, lines 47 – 54).

Thomas fails to teach a connector that which comprises a USB network connector.

Rostoker et al. analogously teaches a device wherein said second end of said programmable cable comprises a connector comprising a USB network connector (column 5, lines 4 – 11).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Thomas and Cisco with the above

teachings of Rostoker et al. One of ordinary skill in the art would have been motivated

to make such modification in order to allow for "plug-and-play" further allowing

transparency on the user end (column 2, lines 63 – 67).

29.   Thomas modified by Cisco further modified by the teachings of Rostoker et al. as

applied to claim 13 above, as per claim 29, Rostoker et al. teaches a method further

comprising monitoring data traffic through the programmable cable using a set of status

indicators (status of data present through protocols where the controller notes

indication, figure 8).

30.   Claims 23 – 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Thomas in view of Sexton further in view of Al-Ali (US Publication Number

2003/0167391).

31.   As per claims 23 – 25, the combination of Thomas and Sexton teaches a method

further comprising communications between the user interface device and the PLC

(computer, column 3, lines 47 – 54), between the programmable cable and the PLC and

between the programmable cable and the user interface device (figure 1).

        The combination of Thomas and Sexton fails to explicitly teach the limitation of

encryption along the communication lines lying therein between.

        Al-Ali teaches analogously a method comprising encryption along a cable

communicating between interfaces (encryption interface cable, element 700, figure 6).

It would have been obvious to one of ordinary skill in the art at the time of the

applicant's invention to modify the combination of Thomas and Sexton with the above

teachings of Al-Ali. One of ordinary skill in the art would have been motivated to make

such modification in order to allow for exclusive compatibility between interfaces without

the necessity of hardware modifications (paragraph [0027]).

32.   Claims 30 – 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Thomas in view of Al-Ali (US Publication Number 2003/0167391).

33.   As per claims 23 – 25 and 30 – 32, Thomas teaches a method further comprising

communications between the user interface device and the PLC (computer, column 3,

lines 47 – 54), between the programmable cable and the PLC and between the

programmable cable and the user interface device (figure 1).

        Thomas fails to explicitly teach the limitation of encryption along the

communication lines lying therein between.

        Al-Ali teaches analogously a method comprising encryption along a cable

communicating between interfaces (encryption interface cable, element 700, figure 6).

        It would have been obvious to one of ordinary skill in the art at the time of the

applicant's invention to modify Thomas with the above teachings of Al-Ali. One of

ordinary skill in the art would have been motivated to make such modification in order to

allow for exclusive compatibility between interfaces without the necessity of hardware

modifications (paragraph [0027]).

Response to Arguments

34.   Applicant's arguments filed 8/8/2006 have been fully considered but they are not

persuasive. The applicant argues that according to the 37 CFR 1.132 declarations by

Dr. Williams Thomas does not teach a programmable logic controller (PLC).

35.   Applicant's arguments with respect to claims 1 – 8 and 14 – 25 have been

considered but are moot in view of the new ground(s) of rejection.

The scopes of the claims have been changed as per the applicant's amendments

and as such necessitate new grounds for rejection.

For further explanation as to how the scope has changed the Examiner

expresses how the originally filed claims did not necessitate a PLC. A PLC was listed in

the context of communicable or couplable with respect to a network and did not require

the PLC as per the claim limitations. The newly amended claims 1 – 8 and 14 – 25

have been modified to necessitate a PLC and accordingly require new grounds for

rejection.

36.   As per claim 9 the claim limitations express two instances of a PLC. In claim 9 a

PLC is said to be couplable and communicable within the device. The Examiner

asserts that the words couplable and communicable do not necessitate a PLC being

present but instead invokes a capability to be coupled to or communicate with a PLC.

Clearly from this citation of the claim limitations one of ordinary skill in the art would

realize that the claim does not necessitate a PLC and the definition and declaration of

what a programmable logic controller (PLC) is not required.

37.   As per claim 26 the claim limitations express a method claim in which a cable is

couplable to a network. Thomas teaches coupling to a network but the claim limitation

of couplable does not necessitate the particular type of network in the claim but adheres

to the capability to couple to a network as clearly shown in the cellular phone system of

Thomas. The PLC is not a required claim limitation and clearly from this explanation

one of ordinary skill in the art would realize that the claim does not necessitate a PLC

and the definition and declaration of what a programmable logic controller (PLC) is not

required.

In order for the Applicant to better understand the rejection the Examiner

respectfully makes of the record, the basis of the current rejection with newly cited prior

art in light of the first Office Action. In the first Office Action the Examiner cited a

computer coupled to a cellular network in the prior art of the record, Thomas. In light of

the current application's specification-background, paragraph 2, lines 1 and 2, where

the applicant states a PLC is a computer utilized in a control system environment, the

Examiner has cited an additional reference Sexton to allow the applicant to understand

the environment of the computer in an industrial PLC environment.

In light of the newly cited prior art and what exactly the claim limitations

necessitate, the Examiner respectfully holds that the motivation to combine as stated in

the first Office Action is to be deemed proper and applicable, as the environment has

been fully accounted for.

Conclusion

38.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Aurangzeb Hassan whose telephone number is (571)

272-8625. The examiner can normally be reached on Monday - Friday 9 AM to 5:30

PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kim Huynh can be reached on (571) 272-4147. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AH
10/25/2006

KIM HUYNH
SUPERVISORY PATENT EXAMINER

12/30/06